



Rural Broadband Internet Services

Albemarle - Amherst - Appomattox - Buckingham - Nelson

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Principal Member of  WISPA®
Wireless Internet Service Providers Association

Date: Tuesday, March 4, 2014

From: Clay Stewart, CEO
SCS Broadband

To: The Honorable Marlene Dortch

Subject: Expression of Interest -SCS Broadband Rural Expansion Project
WC Docket No. 10-90

Dear Program Officers:

This is an expression of interest by the Stewart Computer Services, SCS Broadband Wireless Internet Service Provider located in Nelson County, Virginia to participate in the FCC Connect America information gathering and grant program. Our current operations cover the rural areas between Charlottesville and Lynchburg Virginia, approximately 750 square miles, east of the Blue Ridge mountains. The challenges of capital cost to build into some high cost areas have posed significant barriers to serving all of our regions county residents. SCS Broadband has made great strides since it's inception eight years ago towards the ongoing economic development needs for growing, strengthening and diversifying our local economy. We have a large amount of experience and understanding of the nature of our community, its economy, and the current state of our broadband access, and with this opportunity from the FCC, we could greatly accelerate our SCS Broadband Expansion Project.

Background

Stewart Computer Services (SCS Broadband), designed and began to provision a rural Wireless Internet Services Provider (WISP) network in 2006. The company had performed system design and development to AT&T, MCI, WorldCom , UUNET, Tyco Electronics and the Harris Corporation from 1982 through 2006. In addition, the company had been the first local dial-up ISP for Amherst and Nelson county from 1993 through 2000.

Since 2006, SCS Broadband has concentrated on building a network of small, low profile relays and towers throughout Nelson, Amherst and Buckingham counties of Virginia. Due to tower locations, we also serve portions of Abemarle and Appomattox counties. Thus our current service territory runs from southern Charlottesville to Northern Lynchburg and from the Blue Ridge Mountains to the Piedmont Plains of central Virginia. The current network has been built entirely on private finds from owners and fees from services.

SCS Broadband has fifty-five locations which provide access points for connections to homes and businesses in the territory described above. As an example of one of these served counties, Nelson County has a rural territory of 472 square miles with only an average of 30 people per square mile. There are 5,900 households and 442 non-farm businesses. The median income is \$46,000 in 18 communities. SCS Broadband serves more then half of these communities, and has projects ongoing to provide broadband services to all communities of this county, as well as the others listed above.

SCS Broadband is a community based business, providing low cost services to homes and businesses... but also providing free and discounted services to community organizations such as community centers and churches. We have an interest to help those in low-income brackets to afford our services, and to expand our free and discounted services to more community organizations such as clubs (Lions, Kiwanis, American Legion, VFW, etc...), volunteer fire and rescue locations and other community entities.

The over all goal for the last 8 years has not changed in scope or direction. SCS Broadband is working hard each day to bring the Internet to our neighbors within the logistic support reach from our facilities. This includes all of the rural areas of Amherst, Nelson, and Buckingham Counties... and portions of Appomattox and Albemarle counties.

SCS Expansion Project

The SCS Broadband Rural Expansion Project's goal is to build out from our existing Wireless Internet Service Provider (WISP) network to serve more under-served and unserved portions of our local counties. The objectives are to add additional repeater and access point systems for back-haul and to provide effective, low-cost Internet services to thousands of more people, both home and business. This will be accomplished using SCS Broadband experience in this rural territory, and through using the latest, low-cost technology. SCS Broadband will continue to expand to fill in hard to access locations which are due to forest, hills and low land territories.

Currently, SCS Broadband holds leases on prime mountain locations, but due to limited funds, the growth to fulfill these opportunities is much too slow. Sometimes it takes two to three years to go from leasing a relay spot to provisioning equipment and serving citizens. Thousands of households, and many rural businesses can be affected by the SCS Expansion Project. Although SCS Broadband has had steady growth... and overhead is kept at a minimum, the cost of provisioning equipment for our potential has had the impact of not being able to meet the demands of citizens in these new areas in a timely manner. If SCS Broadband can achieve success with a partnership with the FCC, and perhaps other local interested parties such as local government and community groups, we can fulfill the needs of these rural counties better than any other entity, at the lowest cost per person or household than any other company.

In February of 2013, Nelson County began deploying fiber connections from a stimulus built fiber. One year later, in this same territory, SCS Broadband has deployed services to 131 homes and businesses at a cost of less than \$200 per household. The county has deployed 55 homes and businesses at a cost of thousands of dollars per home, even when adding in incentives of \$750 per home out of the general tax fund and financing the balance for five years to the home owner. This facts show that SCS Broadband is extremely the more cost effective way to bring broadband to more homes, and faster.

Technology Deployment

SCS Broadband currently is a public frequency based Wireless Internet Service Provider (WISP). The company started out with Trango brand equipment, and then switched to Ubiquiti when new technology breakthroughs were delivered by this company, along with industry disruptive pricing. Our cost per home and business installations are 1/6th what they were before this switch to Ubiquiti equipment. Our service plans have increased up to ten fold in speed as a result of this change in equipment.

SCS Broadband has 55 locations to provide access point radios and point-to-point radios through-out our region. Potential growth from this existing infrastructure to fill in unserved census blocks is tremendous. This can be done by acquiring more relay sites and building our small mini-towers, and by leasing existing tower space from a variety of sources, such as American Tower, TowerCo and local government towers and structures.

Our policy is to limit the number of subscribers to a very conservative number per access point radio in order to deliver quality services and higher speeds. This requires us to have more access points and relay sites, but it allows us to deliver broadband speeds to meet today's home Internet requirements, including stream video, VOIP and low latency telecommuting.

Service Products

SCS Broadband offers a variety of service plans for broadband Internet, and a low-cost VOIP product. Our plans are designed to meet the many different requirements people and businesses have for Internet access, from the retired couple needing a low cost method to communicate with family, to the business that needs a dedicated 40Mbps pipeline to our fiber connections.

Below is the details of our current service plans. As fiber has become lower cost over time, and equipment prices continue to drop and provide more bandwidth, SCS Broadband has the reputation to pass upgrades unto subscribers at no additional cost. Our plans are:

Home Plans:

Title	Download		FAP Monthly SoftCAP	Monthly Price	Annual Discounted Price (1 Free Month)
	Min	Max			
Plan 1 - Basic	1Mbps	2Mbps	30GB	29.95	329.45
Plan 2 - Premium	2Mbps	4Mbps	60GB	49.95	549.45
Plan 3 - Ultimate	4Mbps	6Mbps	90GB	69.95	769.45
Plan 4 - Extreme	6Mbps	8Mbps	120GB	89.95	989.45
Plan 5 - Home Office	8Mbps	10Mbps	150GB	109.95	1209.45

Business Plans:

Title	Download		FAP Monthly SoftCAP	Monthly Price
	Min	Max		
Business Plan 1	6Mbps	8Mbps	Unlimited	149.95
Business Plan 2	8Mbps	10Mbps	Unlimited	199.95
Business Plan 3	10Mbps	12Mbps	Unlimited	249.95

Special Plans:

Title	Download		FAP Monthly SoftCAP	Monthly Price
	Min	Max		
Custom Business Plan	TBD	TBD	Unlimited	TBD (speeds set and price set as tailored)
Minor Relay	6Mbps	8Mbps	90	½ price of any plan chosen
Major Relay	8Mbps	10Mbps	120	Free Service
Non-Profit	4Mbps	6Mbps	60	\$25

Home plans receive live support from 8AM to 6PM Monday through Saturday, and voice recording monitoring support on off hours. Business plans have 24/7 live support and unlimited FAP CAP. Under special plans we offer to tailor a business plan to meet specific speed requires, for example a 30/30Mbps up and down tailored package. We also give 50% discount for any property owner who let us set up a small community relay, and free service to property owners who allow us to set up a relay which serves the local community and allows a point-to-point connection to another community. Any non-profit can acquire our special service listed for \$25 a month.

SCS Broadband also offers VOIP services at \$24.95 per month for one line with unlimited calling nationwide. Discounts are give the more lines leased.

Joint Project Offerings

Although SCS is sending this letter independently, we are not opposed to working with any other local government or organization in a joint venture with the FCC program. Although we do not have any direct association with local governments, we do support private / public partnerships as a means to expand Internet adoption rates in rural communities. SCS Broadband is a principal member of the Wireless Service Providers Association and has served on efforts to present and negotiate directly with FCC on various issues. We believe and support that the ongoing communication efforts between WISPA and the FCC are critical in the expansion of broadband services in this country as a whole, and to our region specifically. A partnership such as this grant offering between the thousands of WISPs like ourselves and the FCC is a great avenue in meeting millions of broadband requirements for homes and businesses.

Funding Requested

The type of funding requested would not be monthly payouts via subscriber installations, but one time or funding per relay and access point tower installations. Since we know our territory quite well, and know where we need help in these capital costs, we present below a summary of what we need to accomplish the company's goals for these counties. For the purpose of this letter, we summarize this request by Census Tracts, to be broken down by Census Blocks in our future RFP.

There are two costs involved in growth of our network we would want to apply grant money to, new relay and access points, and equipment for leased towers. We will use an average costs from our experience for these two areas of capital costs. For building our community mini-towers (less than 40'), the average costs is \$11,000. To equip a lease tower (greater than 120') with an average of 6 sectors and 2 point-to-point back-hauls and supporting equipment, the average cost is \$15,000. We use these two figures, and the requirements for each Census track to arrive at our requested funding.

Presented below is a table by Census Tract within our potential area, rolled up for brevity for this letter from Census Blocks. For each Census Tract, we show our estimate of the number of relays and access points required to expand our services to these areas. Taken into account are areas we currently serve, which of course are not included. Although our current services areas cover a vast area, 750 square miles, there are many holes and thus Census Blocks, which request and need our services. These are added into this estimate of required towers and relays.

County Name	Census Tract	Community Relays	Costs Each	Total Cost Relays	Leased Towers	Costs Each	Total Cost Least Tower
Albemarle	51003010402	0	0	0	1	15,000	15,000
Albemarle	51003011000	1	11,000	11,000	1	0	0
Albemarle	51003011100	1	11,000	11,000	1	0	0
Albemarle	51003011201	1	11,000	11,000	1	0	0
Albemarle	51003011202	0	0	0	1	15,000	15,000
Albemarle	51003011301	1	11,000	11,000	1	15,000	15,000
Albemarle	51003011400	1	11,000	11,000	1	15,000	15,000
Amherst	51009010100	6	11,000	66,000	2	15,000	30,000
Amherst	51009010200	2	11,000	22,000	2	15,000	30,000
Amherst	51009010300	2	11,000	22,000	0	0	0
Amherst	51009010401	0	0	0	1	15,000	15,000
Amherst	51009010402	0	0	0	1	15,000	15,000
Amherst	51009010502	0	0	0	1	15,000	15,000
Amherst	51009010503	0	0	0	1	15,000	15,000
Amherst	51009010504	0	0	0	1	15,000	15,000
Amherst	51009010600	1	11,000	11,000	0	0	0
Appomattox	51011040200	2	11,000	22,000	1	15,000	15,000
Buckingham	51029930101	4	11,000	44,000	1	15,000	15,000
Buckingham	51029930202	5	11,000	55,000	1	15,000	15,000
Nelson	51125950100	5	11,000		2	15,000	30,000
Nelson	51125950200	3	11,000		3	15,000	45,000
Nelson	51125950300	6	11,000		1	15,000	15,000
Subtotals:		41	165,000		25		330,000
Grand Total Estimate for Funding Request:							\$495,000

The total amount requested in this letter, Expression of Interest is estimated at \$495,000. The average cost per household and business is estimated at a one time cost of \$200 based on number of subscribers located within these Census Tracts currently under served or not served.

Summary

We have presented who we are and what we have accomplished in this letter, along with our business model. We also presented why we need approval for funds from this program and the impact this would have on thousands of people in a very cost effective process.

SCS Broadband owners are community supporting individuals who operate the business daily with the goal to provide broadband services to every community at an affordable price.

Thank you for your consideration.

Sincerely,

Clay Stewart, CEO – SCS Broadband
Stewart Computer Services